

ABSTRACT OF THE DISCLOSURE

A skew detector calculates symbol amplitudes from a first signal ( $S_I'$  signal) on an I channel side and a second signal ( $S_Q'$  signal) on a Q channel side to be inputted into a carrier reproduction circuit. The skew detector outputs differences between the calculated symbol amplitudes and a predetermined reference amplitude as skew signals. A sine-wave generator generates two orthogonal sine waves from the skew signals which are smoothed via a loop filter. A skew correction unit obtains a multiplied result by multiplying one of the two sine waves (first skew correcting coefficient) and the first signal. The skew correction unit obtains a multiplied result by multiplying the other one of the two sine waves (second skew correcting coefficient) and the second signal. The skew correction unit adds these multiplied results and inputs the added result as a new second signal into the carrier reproduction circuit.